

ATTACHMENT 2

ADMIN RECORD

Implementation Document for the
~~Policy on Distribution of Radioactive Environmental Samples to~~
Commercial Analytical Labs -
Sample Split Between Commercial and DOE Analytical Laboratories

1.0 INTRODUCTION:

The purpose of this document is to provide guidance for the implementation of the Department of Energy (DOE) Office of Environmental Restoration and Waste Management (EM) *Policy for Radioactivity of Samples Sent to Commercial Labs - Sample Split Between Commercial and DOE Laboratories*. This policy states that radioactive environmental samples may be sent to commercial analytical laboratories for analysis up to the license limits for handling radioactive materials established by the Nuclear Regulatory Commission (NRC) or Agreement State for that laboratory. This document provides programmatic controls for ensuring that DOE does not send radioactive environmental samples to commercial analytical laboratories that will exceed their license limits for handling radioactive materials established by the NRC or Agreement States. This document also provides guidance for a phased approach for sending samples to commercial analytical laboratories based on sample radioactivity, the laboratories' license requirements, and contractual requirements. It explains how these factors can be addressed in management of sample distribution while ensuring safety and data quality.

The policy was developed to encourage use of commercial analytical laboratories. Factors that you will use in deciding the radioactive environmental samples to be sent to commercial analytical laboratories include:

- effectiveness of the commercial analytical laboratory's radiological health and safety programs;
- laboratory resources including trained and experienced personnel;
- laboratory capacities;
- special handling requirements;
- past performance history;
- cost-effectiveness;
- location and transportation requirements.

As DOE gains experience and is assured of the protection afforded to workers, the public, and the environment, more radioactive samples and higher levels of radioactivity, within the limits of their NRC or Agreement State license, will be sent to the commercial analytical laboratories.

This policy does not establish any limit on the amount or type of radioactive environmental samples that may be sent to commercial analytical laboratories, but instead uses the limits established by the NRC and Agreement State in each commercial analytical laboratory's license for handling radioactive material.

Individual DOE sites may choose to establish administrative radioactive quantity controls that are lower than an individual commercial analytical laboratory's NRC or Agreement State license limits for handling radioactive materials.

2.0 DEFINITIONS:

Commercial analytical laboratories are non-DOE Complex laboratories offering analytical services to DOE that have been, or will be, procured by DOE EM. These laboratories are required to have a NRC or Agreement State license to handle radioactive material.

DOE Complex laboratories are analytical laboratories providing analytical services to DOE EM that are operated for DOE and comply with DOE requirements for the handling of radioactive material.

Environmental samples are (1) any solid, liquid, or gaseous wastes; effluents; emissions; ambient air; water; soil; sediment; and biota, and (2) collected for physical, chemical, radiological, and biological characterization.

Mixed wastes are wastes that are both hazardous and radioactive.'

Radioactive environmental samples are environmental samples that contain sufficient amounts of radioactivity to be regulated by the NRC, Agreement States, or DOE.

3.0 SCOPE AND APPLICATION:

The implementation requirements apply to DOE organizations and contractors and their subcontractors who have the responsibility for overseeing, procuring, or using analytical laboratory services for the analysis of DOE EM radioactive environmental samples. The requirements also apply to organizations that have responsibility for the management of DOE EM radioactive environmental sample distribution to DOE Complex laboratories and commercial analytical laboratories. This implementation document is applicable on the effective date of the corresponding policy.

4.0 RESPONSIBILITIES:

4.1 EM Laboratory Management Division (EM-563)

EM-563 is responsible for

- (a) developing, issuing, and maintaining this implementation document;
- (b) assuring that all organizations that may be affected by this document are placed on distribution for this implementation document and any revisions thereto; and

¹ For a material to be considered a mixed waste, it must meet the definition of a low-level radioactive waste as defined in the Low-Level Radioactive Policy Amendments Act of 1985 and be considered hazardous, as defined in the Resource Conservation Recovery Act regulations. Joint EPA/NRC guidance (OSWER Policy Directive 9432-002) also indicates that source, special nuclear, and byproduct materials that are mixed with hazardous wastes also satisfy the definition of a mixed waste.

- (c) ensuring the effective implementation of this document's requirements through assessment activities.

4.2 DOE Field Offices

DOE field offices are responsible for ensuring that

- (a) their management and operations contractors (M&Os) establish offices of sample management (OSMs) or equivalent entities who develop program controls that are consistent with this implementation document,
- (b) adequate programs exist at sites to effectively control the distribution of DOE EM radioactive environmental samples to commercial analytical laboratories, and
- (c) through assessment activities, their sub-tier organizations are effectively implementing the applicable requirements of this document.

Field Offices are encouraged, where possible, to consolidate sample management functions into one office of sample management for each site. The sample management office for the site should track samples going to commercial sector laboratories as well as samples being analyzed by on-site and national laboratories supporting that site.

4.3 Management & Operations Contractor

Each M&O is responsible for

- (a) implementing adequate programs to effectively control the distribution of DOE EM radioactive environmental samples to commercial analytical laboratories and to avoid exceeding the commercial analytical laboratories' license limits for handling radioactive material,
- (b) implementing adequate programs to effectively control the distribution of DOE EM radioactive environmental samples to M&O and National laboratories being used by the site,
- (c) evaluating the effective implementation of the applicable requirements of this document through assessment activities.

4.4 Commercial Analytical Laboratories

Each commercial analytical laboratory is responsible for

- (a) providing to each M&O, when requested, a copy of their NRC or Agreement State license for handling radioactive material,

- (b) providing to the responsible M&Os timely and accurate updates concerning changes in their inventory of radioactive materials due to the receipt of additional radioactive samples or materials,
- (c) ensuring that the license limit for handling radioactive material is not exceeded upon receipt of DOE EM radioactive environmental samples for analysis, and
- (d) reporting to the M&O when the NRC or Agreement State cites the commercial analytical laboratory for a license violation.

5.0 REQUIREMENTS FOR IMPLEMENTATION:

5.1 Laboratory Management Division

EM-563 shall ensure that appropriate clauses exist in DOE EM procurement documents to accomplish the following objectives:

- (a) establishment of adequate programs at sites for the identification, handling, labeling, packaging, and transportation of radioactive environmental samples to be sent to commercial analytical laboratories such that the respective sample management office can effectively control the distribution of the radioactive environmental samples, and
- (b) establishment of administrative program controls or procedures that may be used by the sample management offices that address the acquisition, revision, verification, and management of information concerning each commercial analytical laboratory for which they have contracts or purchase orders for providing sample analysis. These administrative program controls or procedures shall establish a process that ensures that the sample management office does not direct DOE sites to send radioactive environmental samples to a commercial analytical laboratory that exceeds the commercial analytical laboratory's NRC or Agreement State license limit for handling radioactive material.

5.2 Sample Management Offices

Sample Management Offices shall

- (a) send radioactive environmental samples to commercial analytical laboratories that are within the laboratory's NRC or Agreement State license limits for handling radioactive materials through implementation of adequate documented program controls. These controls may include, but are not limited to, telephone or facsimile contact with the laboratory prior to sample shipment to verify that the laboratory's license limit will not be exceeded upon shipment of samples. The Sample Management Office (SMO) may

require the laboratory to update their radioisotopic inventory on a periodic basis and report the updated inventory.

- (b) efficiently use commercial capacity by preferentially sending the lowest activity samples available. The SMO will manage its commercial contracts to maximize the number of samples that may be sent to commercial laboratories. The sample management office may use a phased approach for sending samples. That is, the SMO may set an administrative limit for activity of samples that may go to commercial laboratories (e.g., less than 10 mR at contact). This administrative limit will be evaluated periodically and revised as appropriate.
- (c) send to the DOE Complex laboratories those radioactive environmental samples that are not sent to the commercial analytical laboratories for analysis,
- (c) ensure that the methods used for establishing the radioactivity content in environmental samples being used at the site are consistent with the methods used by the commercial analytical laboratories who receive the radioactive environmental samples, and
- (d) provide in their procurement documents for commercial analytical laboratory services appropriate clauses to accomplish the following objectives:
 - (1) submittal to the respective SMOs by each commercial analytical laboratory a copy of their NRC or Agreement State licenses for handling radioactive materials prior to receiving radioactive environmental samples for analysis,
 - (2) submittal to the respective SMOs by the commercial analytical laboratories timely and accurate updates reflecting their changing capacity for handling radioactive environmental samples due to the receipt of additional radioactive material,
 - (3) submittal to the respective SMOs by the commercial analytical laboratories notification when the laboratory has reached 75% of their licensed capacity for each isotope covered in their license,
 - (4) notification to the respective SMOs within 24 hours when the NRC or Agreement States cite the commercial analytical laboratory for noncompliance with their license requirements, and
 - (5) cessation, at DOE's discretion, of shipments and analysis of any DOE radioactive environmental samples at a commercial analytical laboratory, including radioactive environmental

samples being sent under previously awarded contracts, if a violation of an NRC or Agreement States license is identified at a commercial analytical laboratory.

5.3 Commercial Analytical Laboratory

Commercial analytical laboratories shall comply with contractually specified requirements and those requirements specified in their NRC or agreement state licenses.